Options
Title: ssb_sc_p...crimination
Author: shashank
Output Language: Python
Generate Options: QT GUI

Variable
ID: samp_rate
Value: 32k

Variable
ID: msg_amplitude
Value: 10

Variable
ID: carrier_amplitude
Value: 1

Variable
ID: mu
Value: 10

Note
Note: SSB-SC Transmitter

Signal Source
Sample Rate: 32k
Waveform: Cosine
Frequency: 1.5k
Amplitude: 10
Offset: 0
Initial Phase (Radians): 0

QT GUI Time Sink
Name: Carrier Signal
Number of Points: 1.024k
Sample Rate: 32k
Autoscale: Yes

Signal Source
Sample Rate: 32k
Waveform: Cosine
Frequency: 10k
Amplitude: 1
Offset: 0
Initial Phase (Radians): 0

Multiply Const
Constant: 500m

Multiply Const
Constant: 500m

Multiply

QT GUI Time Sink
Name: 0.5m(t)coswct
Number of Points: 1.024k
Sample Rate: 32k
Autoscale: Yes

QT GUI Frequency Sink
Name: 0.5m(t)coswct
FFT Size: 1024
Center Frequency (Hz): 0
Bandwidth (Hz): 32k

Multiply Const
Constant: -1

Add

Throttle
Sample Rate: 32k
Limit: None

QT GUI Time Sink
Name: Modulated Signal
Number of Points: 1.024k
Sample Rate: 32k
Autoscale: Yes

QT GUI Frequency Sink
Name: Modulated Signal
FFT Size: 1024
Center Frequency (Hz): 0
Bandwidth (Hz): 32k

QT GUI Time Sink
Name: Message Signal
Number of Points: 1.024k
Sample Rate: 32k
Autoscale: Yes

QT GUI Frequency Sink
Name: Message Signal
FFT Size: 1024
Center Frequency (Hz): 0
Bandwidth (Hz): 32k

Hilbert
Num Taps: 65

Hilbert
Num Taps: 65

Complex To Float

Null Sink

Null Sink

Complex To Float

Multiply Const
Constant: -1

Multiply

QT GUI Time Sink
Name: 0.5m'(t)sinwct
Number of Points: 1.024k
Sample Rate: 32k
Autoscale: Yes

QT GUI Frequency Sink
Name: 0.5m'(t)sinwct
FFT Size: 1024
Center Frequency (Hz): 0
Bandwidth (Hz): 32k

Note
Note: SSB-SC Receiver

Signal Source
Sample Rate: 32k
Waveform: Cosine
Frequency: 10k
Amplitude: 1
Offset: 0
Initial Phase (Radians): 0

Multiply

Low Pass Filter
Decimation: 1
Gain: 1
Sample Rate: 32k
Cutoff Freq: 1.5k
Transition Width: 1
Window: Hamming
Beta: 6.76

QT GUI Time Sink
Name: Demodulated Signal
Number of Points: 1.024k
Sample Rate: 32k
Autoscale: Yes

QT GUI Frequency Sink
Name: Demodulated Signal
FFT Size: 1024
Center Frequency (Hz): 0
Bandwidth (Hz): 32k